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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/266,936	03/12/1999	PETRI SILENIUS	1562.0110000	6421

26111 7590 07/31/2002

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EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
1773	20

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/266,936	SILENIUS
	Examiner Kevin R Kruer	Art Unit 1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on July 22, 2002.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-4,7,8,10-16 and 18-30 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4,7,8,10-16 and 18-30 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.  
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

NOTE: New claims 17-29 have been renumbered 18-30 because the application already contained claim 17 (originally filed). Applicant is requested to resubmit claims 17-29 renumbered as 18-30. Furthermore, the dependency of dependent claims 18-25, and 27-29 should be changed to reflect such a change. In the following action, claims 17-29 will be referred to as claims 18-30 respectively.

### *Claim Objections*

1. Claims 10 (1-4) and 24(18-21) are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, calcium oxalates are monohydrates (see the definition in the McGraw-Hill Dictionary of Chemical Terms). Thus, claim 10 does not further limit claim 1.

### *Claim Rejections - 35 USC § 112*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

NOTE: for the remainder of the prosecution of this application, the term "wood-free" will be understood to mean a "pulp furnish without mechanical pulp."

2. Claims 1-4, 7, 8, and 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "fine paper" is indefinite. Specifically, Exhibit 1 (aka the "Paper Dictionary" supplied by Applicant) defines "fine paper" as an uncoated paper. However, Applicant claims a paper that may comprise coating pigment (aka a coated paper).

3. Claims 19, 20, 25, and 26 recite the limitation "the pigment." There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-4, 7, 8, 10-16, and 18-30 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The original disclosure does not describe to one of ordinary skill in the art how to determine the ISO brightness and the opacity. Applicant must supply the Office with a copy of the incorporated test standards that predates the filing date of the invention. Alternatively, the test methods must be incorporated into the specification.

5. Claims 2, 12, 19, 22, and 26 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the original disclosure to support the new limitation that "percent by weight" was the physical property upon which the claimed physical properties were based.

6. Claims 11 and 25 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The majority of the markush members are disclosed in the specification on the first paragraph of page 8.

However, the original disclosure contains no support for utilizing silica in combination with calcium oxalate.

7. Claims 16 and 30 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the original specification for a paper comprising 91-100% calcium oxalate. The broadest support the examiner could find in the specification was on page 7, which teaches that the paper may comprise 1-90% filler.

### ***Claim Rejections - 35 USC § 103***

1. Claims 1-4, 7(1-4), 10 (1-4), 11 (1-4), 12-15, 18-21, 22 (18-21), 24(18-21), 25(18-21), and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al. (Pat. No. 5,92546) in view of SE8904337A (aka Carno). Matsuda teaches a paper and a method of making said paper that comprises a base paper and a coating (abstract). The base paper comprises pulp and filler (col 8, lines 1+), wherein the filler comprises calcium carbonate, silicates, inorganic fillers, and organic pigments (col 8, lines 1-7). Chemical pulp, non-wood pulp, or mechanical pulp may be used in the base paper (col 7, line 65- col 8, line 25). The coating comprises a binder and a pigment (abstract), wherein the pigment is selected from the group consisting of sodium chloride, potassium chloride, calcium chloride, sodium sulfate, zinc oxide, titanium dioxide, tin oxide, etc (col 8, lines 57-63). The paper preferably has an opacity of at least 90% (col 10, lines 1-9) and a brightness of at least 82% (col 10, lines 26-37).

Matsuda does not teach the addition of calcium oxalate to the pulp and/or coating of the paper. However, Carno teaches that calcium oxalate may be added as a filler or as a pigment to a paper product. The calcium oxalate has the property of bleaching formed colored structures and prevents light induced yellowing of paper pulp. Thus, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to replace some of the filler/pigment taught in Matsuda with calcium oxalate in order to prevent light induced yellowing of the paper pulp.

With respect to claims 2, 7, 12, 19, 22, and 26, the courts have held that a difference in concentrations or temperatures will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. ‘{W}here the general conditions of a claim are disclosed in the prior art it is not inventive to discover the optimum or workable ranges by routine experimentation. ‘*In re Aller*, 220, F.2nd 454, 105 USPQ 233, 235 (CCPA 1955). In the current rejection, Carno teaches the addition of calcium oxalate to paper and/or paper coatings reduces light induced yellowing. Therefore, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to add calcium oxalate to the paper and/or paper coating in sufficient amounts in order to maximizing the paper’s protection against yellowing while maintaining the desired opacity, brightness, and printing properties.

With respect to claims 14 and 28, the examiner takes the position that the combustion residue depends on the proportion of the calcium oxalate in the pigments and/or filler in the paper (see page 5, lines 11-13 of the specification). Since it would have been obvious to vary the amount of calcium oxalate in the paper/coating (as

discussed above), the examiner takes the position that the limitations of claim 14 have been met.

2. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hampl in view of Carno, as applied above, and further in view of Hampl (US 5,893,372) or Griffiths et al. (US 3,928,122). Hampl in view of Carno are relied upon as above. The references do not teach the importance of controlling the particle size of the calcium oxalate. However, Hampl teaches that particle size affects opacity, whiteness and brightness (col 4, lines 55-60). Griffiths similarly teaches that it is known that the opacity of a white filler is affected by its particle size (col 3, lines 50-58). The courts have held that a difference in concentrations or temperatures will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. ‘{W}here the general conditions of a claim are disclosed in the prior art it is not inventive to discover the optimum or workable ranges by routine experimentation. ‘*In re Aller* , 220, F.2nd 454, 105 USPQ 233, 235 (CCPA 1955). In the present application, Carno teaches the addition of calcium oxalate to paper as filler and/or pigment and Griffiths and Hampl teach that the particle size of such a filler/pigment is critical for controlling the whiteness, brightness, and opacity of the paper product. Thus, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to optimize the particle size of the calcium oxalate pigment/ filler in order to control the paper’s whiteness,

3. Claims 18-21, 22(18-21), 24 (18-21), 25(18-21), and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Post et al. (US 4,445,970) in view of SE8904337A (aka Carno). Post teaches a fine paper suitable for offset and gravure printing containing 30-70wt% filler (abstract). The filler is utilized to reduce cost and to obtain certain optical and physical properties such as brightness and opacity. Suitable

fillers include any material that is not water soluble such as clay, talc, titanium dioxide, aluminum hydrate, hydrated silica, calcium carbonate, etc (col 5, lines 51-56). Suitable pulps include chemical pulp and non-wood pulp (col 8, lines 8-20). The paper preferably has a brightness greater than 80% and the opacity greater than 90% (see Tables VI-VIII).

Post does not teach the addition of calcium oxalate to the pulp and/or coating of the paper. However, Carno teaches that calcium oxalate may be added to paper as a filler. The calcium oxalate has the property of bleaching formed colored structures and prevents light induced yellowing of paper pulp. Thus, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to replace some of the filler/pigment taught in Matsuda with calcium oxalate in order to prevent light induced yellowing of the paper pulp.

With respect to claims 19, 22, and 26, the courts have held that a difference in concentrations or temperatures will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '{W}here the general conditions of a claim are disclosed in the prior art it is not inventive to discover the optimum or workable ranges by routine experimentation.' *In re Aller* , 220, F.2nd 454, 105 USPQ 233, 235 (CCPA 1955). In the current rejection, Carno teaches the addition of calcium oxalate to paper and/or paper coatings reduces light induced yellowing. Therefore, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to add calcium oxalate to the paper and/or paper coating in sufficient amounts in order to maximizing the paper's protection against yellowing while maintaining the desired opacity, brightness, and printing properties.

With respect to claim 28, the examiner takes the position that the combustion residue depends on the proportion of the calcium oxalate in the pigments and/or filler in the paper (see page 5, lines 11-13 of the specification). Since it would have been obvious to vary the amount of calcium oxalate in the paper/coating (as discussed above), the examiner takes the position that the limitations of claim 14 have been met.

4. Claims 18-21, 22(18-21), 24 (18-21), 25(18-21), and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hampl Jr. (US 5,893,372 in view of (aka Carno). Hampl teaches a high opacity cigarette wrapping paper (abstract) wherein the paper comprises cellulosic pulp (col 6, line 17) and 20-40wt% white pigment (col 3, line 45). The paper preferably has a brightness of at least 70% and an opacity of at least 80% (col 3, line 24).

Hampl does not teach the addition of calcium oxalate to the pulp and/or coating of the paper. However, Carno teaches that calcium oxalate may be added to paper as a white filler. The courts held in *Sinclair & Carroll Co. v. Interchemical Corp* (325 US 327, 65, USPQ 297 (1945)) that "Reading a list and selecting a known compound to meet a known requirement is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." Thus, the court held the selection of a known material based on its suitability for its intended use supported *prima facie* obvious. Therefore, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to utilize calcium oxalate as the white filler taught in Hampl because Carno teaches that calcium oxalate is useful as white filler in paper.

Furthermore, it is known in the art that it is desirable to add calcium oxalate to cigarette paper in order to improve taste and aroma (US 3,640,285-abstract), flame retardant (JP 52032975-abstract), and ashing (US 3,608,559 abstract).

With respect to claims 25 and 29, the courts have held that "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose . . . [T]he idea of combining them flows logically from them having been individually taught in the prior art." *In re Kerkhoven*, 626 F2d. 846, 205 USPQ 1069, 1072 (CCPA 1980). Thus, the examiner takes the position that it would have been obvious to blend the white pigment taught in Hampl (eg. calcium carbonate) and the white pigment taught in Carno (calcium oxalate).

With respect to claim 28, the examiner takes the position that the combustion residue depends on the proportion of the calcium oxalate in the pigments and/or filler in the paper (see page 5, lines 11-13 of the specification). Since it would have been obvious to vary the amount of calcium oxalate in the paper/coating (as discussed above), the examiner takes the position that the limitations of claim 14 have been met.

5. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Post, or Matsuda, in view of Carno, as applied above, and further in view of Hampl (US 5,893,372) or Griffiths et al. (US 3,928,122). Post and Matsuda, in view of Carno are relied upon as above. The references do not teach the importance of controlling the particle size of the calcium oxalate. However, Hampl teaches that particle size affects opacity, whiteness and brightness (col 4, lines 55-60). Griffiths similarly teaches that it is known that the opacity of a white filler is affected by its particle size (col 3, lines 50-58). The courts have held that a difference in concentrations or temperatures will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '{W}here the general conditions of a claim are disclosed in the prior art it is not inventive to discover the optimum or workable ranges by routine experimentation. '*In re Aller* , 220, F.2nd 454,

105 USPQ 233, 235 (CCPA 1955). In the present application, Carno teaches the addition of calcium oxalate to paper as filler and/or pigment and Griffiths and Hampl teach that the particle size of such a filler/pigment is critical for controlling the whiteness, brightness, and opacity of the paper product. Thus, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to optimize the particle size of the calcium oxalate pigment/ filler in order to control the paper's whiteness, brightness, and opacity.

***Response to Arguments***

The examiner would like to take this opportunity to respond to some of Applicant's arguments filed in the After Final amendment, Paper #14.

Applicant argues that Matsuda, Post, and Hampl are not in the same field of endeavor as Carno. Specifically, Applicant argues that the papers of Matsuda, Post, and Hampl do not contain ligneous or mechanical pulp as taught in Carno. The examiner respectfully disagrees with Applicant's narrow interpretation of analogous fields of endeavor. The examiner maintains the position that all the references are directed to the paper industry, and thus are analogous art.

Applicant also argues that the fine papers taught in Matsuda, Post, and Hampl are not susceptible to yellowing. However, counsel's argument does not take the place of evidence. Furthermore, Carno teaches that calcium oxalate is useful as a paper pigment. The courts have held that the substitution of one equivalent component for another is not necessary to render such substitution obvious. *In re Fout*, 675 F2d, 297, 213 USPQ 532 (CCPA 1982). Thus, Applicant's arguments are not persuasive.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is (703) 305-0025. The examiner can normally be reached on Monday-Friday from 7:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703)305-5436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

*K-RK*  
Kevin R. Kruer  
Patent Examiner

*V. Chen*  
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